

ABSTRACT

A sealed rolling bearing has sealing devices with both the functions of high sealing ability and small sliding resistance, which are antipodal to each other. The sealed rolling bearing has an outer member (1, 30) formed with an outer raceway surface (8, 29) on its inner circumferential surface. An inner member (4, 5, 32) is formed with an inner raceway surface (9a, 9b, 31) on its outer circumferential surface. The inner raceway surface (9a, 9b, 31) is arranged opposite to the outer raceway surface (8, 29). Rolling elements (10, 34) are freely rollably contained between the outer and inner raceway surfaces. Sealing devices (12, 13, 35) are arranged in an annular space formed between the outer and inner members (1, 30 and 4, 5, 32). Each of the sealing devices (12, 13; 35) has elastic sealing lips (27a~27c, 23~25, 37a, 37b). The maximum height R_y or R_{max} of the surface roughness of a sliding surface of a member of the rotational side (18, 4, 32), which the sealing lips (27a~27c, 23~25, 37a, 37b) slidably contact, is limited to a value of $2.0\mu\text{m}$ or less. The run-out of the sliding surface, normal thereto, is limited to a value of $30\mu\text{m}$ or less.